RESTORING CANCER-SUPPRESSING FUNCTIONS TO NEOPLASTIC CELLS THROUGH DNA HYPOMETHYLATION

ABSTRACT

Compositions and methods are provided for treating diseases associated with abnormal cell proliferation such as cancer by storing inherent tumor-suppressing functions of neoplastic cells through DNA hypomethylation. The method comprises: delivering to a patient suffering from cancer a therapeutically effective amount of a DNA methylation inhibitor such as decitabine, in combination with an effective amount of an anti-neoplastic agent whose activity as an anti-neoplastic agent in vivo is adversely affected by aberrant DNA methylation. The anti-neoplastic agent can be an alkylating agent, an antibiotic agent, an antimetabolic agent, a retinoid, a hormonal agent, a plant-derived agent, an anti-angiogenesis agent and a biologic agent such as monoclonal antibody and interferon.